

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
)	
Response Efforts Undertaken During 2017)	PS Docket No. 17-344
Hurricane Season)	
)	

REPLY COMMENTS OF VERIZON

A broad cross-section of commenters agrees that consumers’ safety and security needs before, during, and after the 2017 hurricanes were best served where service providers, state and local public safety officials, and other stakeholders employed established best practices for network resiliency and disaster planning and recovery.¹ The record shows how access to resources like staging areas, service providers’ presence in and access to state and local government emergency operations centers and personnel, credentialing for access to affected areas, and up-front investment in disaster preparedness, all enabled service providers to maintain and quickly restore service.² Indeed, the loss or unavailability of those resources in Puerto Rico and the USVI in Maria’s immediate aftermath—caused simply by the storm’s more widespread devastation—illustrates how critical those resources are.³ Consumers and state and local

¹ See APCO Comments at 2 (“Compliance with industry best practices on redundancy and resiliency improved the likelihood that communications networks would remain online”); City of Houston Comments at 1-2, 6-7; CTIA Comments at 4-7; T-Mobile Comments at 7-11.

² See Verizon Comments at 3-7; Charter Comments at 3-4; Comcast Comments at 4, 7-8; Motorola Solutions Comments at 4-5, 8; PRTRB Comments at 11-13.

³ See PRTC Comments at 6-7; Viya Comments at 6-9. While Public Knowledge asserts that mandating new back-up power capabilities “off the electric grid” would have addressed the loss of networks in Puerto Rico and the USVI, *see* Public Knowledge Comments at 7, commenters

governments are best served when competition drives such investment in reliable, resilient infrastructure by multiple companies. Thus, as APCO suggests, the Commission should encourage more widespread adoption of the Wireless Resiliency Framework's components and other available best practices.⁴ And as consumers increasingly use their mobile devices to access other platforms and services for information during disasters, social media companies and public Wi-Fi networks could implement similar practices and educate users regarding the capabilities and limitations of their services during disasters.⁵

Commenters also widely agree that the storms' impact on wireless consumers primarily resulted from lost or limited access to sites, rather than from shortcomings in network resiliency.⁶ Verizon's experience and that of other service providers bears that out, as the industry responded comprehensively to the loss of electrical power through on-site and deployable back-up power resources. But it also supports future efforts by the Commission and the communications industry to continue to improve coordination with other critical infrastructure stakeholders like electric utilities and state and local governments.⁷

explained that service providers *had already taken those steps*. PRTC Comments at 6; T-Mobile Comments at 10-11; Viya Comments at 11.

⁴ See APCO Comments at 4-5; see also CTIA Comments at 8-9.

⁵ In many cases, those services will benefit from the network reliability practices of facilities-based wireless providers, for example, if they are resellers of licensed facilities-based services, or their consumers use licensees' networks to access Internet content.

⁶ See CTIA Comments at 4-6; PRTRB Comments at 2-3, 12-13 (noting "towers in Puerto Rico withstood the hurricane well"); T-Mobile Comments at 11; Verizon Comments at 3-5; WIA Comments at 2 (noting several member companies' tower facilities suffered limited or no damage).

⁷ See Verizon Comments at 7; Comcast Comments at 14; Neptuno Networks Comments at 5; PRTC Comments at 7-8; T-Mobile Comments at 12-13; Viya Comments at 23-25.

Commenters also bolstered several of Verizon’s conclusions on lessons service providers and state and local governments can learn from the 2017 hurricanes. The satellite industry, for example, affirmed how wireless providers can use satellite technology for backhaul as another tool for service providers’ support of first responders.⁸ APCO affirmed the importance of PSAPs’ collaborating with service providers on their default routing plans and capabilities.⁹ And the U.S. Department of Homeland Security and others echoed Verizon’s successful experience with WPS, TSP and GETS during and after the storms.¹⁰ DHS showed the importance of those programs to government and private sector users alike, and how public safety users can benefit from innovation on commercial networks.¹¹ It is unnecessary, though, for the Commission to expand the scope of its CMRS-based WPS rules to non-common carrier video and data services.¹² Priority capabilities for commercial non-voice services are already moving ahead rapidly in the competitive wireless marketplace; government users, including public safety, are poised to benefit from those capabilities without the need for further rulemaking. The Commission’s light regulatory touch for mobile broadband services already gives service providers and Federal government users the flexibility they need to design these services in a

⁸ See Verizon Comments at 17; Satellite Industry Ass’n Comments Attachment at 5; Hughes Network Systems Comments at 5.

⁹ See APCO Comments at 5; Verizon Comments at 12, 17; *see also* City of Houston Comments at 4-5, 8; PRTRB Comments at 12.

¹⁰ See DHS Comments at 3-5; Verizon Comments at 3, 14; *see also* Comcast Comments at 6; PRTRB Comments at 9-10; City of Houston Comments at 6-7.

¹¹ See Verizon Comments at 14; DHS Comments at 5 (describing WPS Enhanced Overload Performance feature).

¹² See DHS Comments at 6.

manner that meets the latter’s demands.¹³ Imposing new regulatory approval requirements would remove that flexibility as mobile broadband services continue to evolve and innovate.

Some commenters, though, recommend a much more regulatory-based approach, even as the hurricanes revealed demonstrable *improvements* in wireless network reliability. In fact, the Commission’s existing reporting tools and regulatory framework already meet commenters’ policy objectives, without the need for more prescriptive regulation. For example, despite long-acknowledged concerns regarding the commercial and security sensitivity of NORS- and DIRS-related site information, a few parties support more prescriptive and granular disclosure of competitively and security-sensitive facilities siting and other preparedness information.¹⁴ Such requirements would impose substantial paperwork and administrative costs on service providers, with no countervailing network reliability benefits for consumers. The Commission’s DIRS program and the Framework commitments already draw the right balance—not by imposing a “one size fits all approach,” as Public Knowledge alleges, but by enabling service providers to adapt their resiliency and response efforts to a disaster’s particular circumstances, and to quickly update their future plans based on lessons learned.

Finally, APCO expresses a more specific concern that “a cell site might have no backhaul, no capacity, and no ability to provide actual service, but not be reported in DIRS as out of service.”¹⁵ But the overwhelming majority of Verizon’s sites reported to DIRS were out of service due to the loss of backhaul. While the Commission’s and industry’s experience in Puerto

¹³ See *Restoring Internet Freedom*, Declaratory Ruling, Report and Order, and Order, FCC 17-166, ¶¶ 99-102 (2017); Verizon Comments at 14.

¹⁴ See Public Knowledge Comments at 5, 8-9.

¹⁵ See APCO Comments at 4.

Rico in particular merits a review of DIRS reporting to ensure that the Commission and consumers receive useful information about the availability of service,¹⁶ service providers' Framework-related commitments proved effective in giving the public visibility into where the hurricanes had the most significant impact on networks.

For the foregoing reasons and those discussed in its comments, the record affirms how Verizon and wireless industry practices effectively met consumers' needs during and after last year's hurricanes, all within the Commission's flexible and collaborative approach to network reliability.

Respectfully submitted,

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¹⁶ See Verizon Comments at 15-16; CTIA Comments at 22; PRTC Comments at 9; T-Mobile Comments at 13-14; *see also* Viya Comments at 18-20.